

AMENDMENTS TO THE CLAIMS:

Please cancel claim 24 without prejudice or disclaimer and amend the claims as follows:

1. (Currently Amended) A method for scale manufacturing a series of shoe shapes distributed on a series of footwear sizes starting from a base shoe shape [[(2)]] provided in a basic footwear size, comprising ~~the following steps:~~
 - ~~—gathering the gathering~~ spatial coordinates (x_B, y_B, z_B) of points on the base shoe shape [[(2)]] of basic size using gauges[[(15)]] associated with a ~~first~~ computer means [[(10)]] on which CAD programs are run, or obtaining said spatial coordinates (x_B, y_B, z_B) from a storage unit [[(8)]];
 - ~~—obtaining, obtaining,~~ from the spatial coordinates (x_B, y_B, z_B) of points on the base shoe shape [[(2)]] of basic size, [[the]] spatial coordinates (x_n, y_n, z_n) of points on at least another shoe shape in the series, by using said computer means [[(10)]] provided with predetermined calculation formulae;
 - wherein said computer means equipped with CAD programs is used for defining a profile, a volume, or spatial coordinates of footwear component parts associated with said another shoe shape in the series; and
 - feeding an NC feeding a numerically-controlled (NC) tool machine with said spatial coordinates (x_n, y_n, z_n) of points on said at least another shoe shape in the series for the manufacture thereof;

wherein said calculation formulae link the spatial coordinates (x_n, y_n, z_n) of points on said at least another shoe shape in the series to the spatial coordinates (x_B, y_B, z_B) of points on the base shoe shape by a relation of proportionality of predetermined –characterized in that said computer means (10) equipped with CAD programs is used for defining the profile, the volume, or the spatial coordinates of footwear component parts associated with said another shoe shape in the series;
and that said coefficients (c_x, c_y, c_z) that are functions of an integer (n) denoting the positive or negative distance of a given size in [[the]] a range with respect to the basic size, according to the following formulae:

$$Cx = 1 + f(n)$$

$$Cy = 1 + f(n) - f(n|n|)$$

$$Cz = 1 + f(n) - f(n|n|)$$

where, $|n|$ is the absolute value of n.

2. (Currently Amended) The method Method according to Claim 1, characterized in that wherein said functions of said integer (n) are multiplication functions by predetermined numerical parameters (a, b, c, d, e), as per the following relations:

$$Cx = 1 + n \cdot a$$

$$Cy = 1 + n \cdot b - n|n| \cdot c$$

$$Cz = 1 + n \cdot d - n|n| \cdot e$$

3. (Currently Amended) The method Method according to Claim 2, characterized in that wherein the parameter (a) of constant length variation along the X axis varies within the range of $(3.5 \div 1.5) \cdot 10^{-2}$.

4. (Currently Amended) The method Method according to Claim 2, characterized in that
wherein the parameter (b) of first-degree width variation along the Y axis varies within the
range of $(3.5 \div 2.0) \cdot 10^{-2}$.

5. (Currently Amended) The method Method according to Claim 2, characterized in that
wherein the parameter (d) of first-degree thickness variation along the Z axis varies within
the range of $(3.0 \div 1.0) \cdot 10^{-2}$.

6. (Currently Amended) The method Method according to Claim 2, characterized in that
wherein the parameter (c) of second-degree width variation along the Y axis varies within the
range of $(4.0 \div 7.0) \cdot 10^{-4}$.

7. (Currently Amended) The method Method according to Claim 2, characterized in that
wherein the parameter (e) of second-degree thickness variation along the Z axis varies within
the range of $(4.0 \div 7.0) \cdot 10^{-4}$.

8. (Currently Amended) The method Method according to Claim 2, characterized in that
wherein the values of said parameters (a, b, c, d, e) are increased to develop shoe shapes for
child sizes from those for developing lady/gentleman shoe shapes.

9. (Currently Amended) The method Method according to Claim 2, characterized in that
wherein said second-degree variation parameters (c, e) along the Z axis may have the same
value.

10. (Currently Amended) The method Method according to Claim 1, characterized in that wherein said range of footwear sizes spreads over constant-rate length variations (X axis), and over width (Y axis) and thickness (Z axis) variations that are related to said length variation.

11. (Currently Amended) The method Method according to Claim 10, characterized in that wherein said constant rate is equal to 0.5 cm.

12. (Currently Amended) The method Method according to Claim 10, characterized in that wherein a size in said range of footwear sizes describes the foot plantar surface as developed in the distal direction, i.e. in the length direction or X axis.

13. (Currently Amended) The method Method according to Claim 1, characterized in that wherein the footwear sizes are spread over length variations that are based on the decimal metric system.

14. (Currently Amended) The method Method according to Claim 1, characterized in that wherein a comfort rating mark, obtained from said computer means [[(10)]] as a sum, that is weighed and standardized in respect of the measurement units, of a group of numerical values characterizing a given shoe shape, is associated with each shoe shape in the series.

15. (Currently Amended) The method Method according to Claim 14, characterized in that wherein said numerical values include at least the volume available for the foot, the “fit”, and the softness of the materials out of which the shoe is made.

16. (Currently Amended) The method Method according to Claim 15, characterized in that wherein the fit is the smallest section through which the tarsus and the metatarsus must be passed in order to put on the shoe, as calculated in a parallel plane to a diagonal line (D) from the end (H) of the contour line on the top pad to the foremost point (K) of the top flat of the shoe shape [[(1)]].

17. (Currently Amended) The method Method according to Claim 1, characterized in that wherein said footwear component parts are comprise at least the insole, the sole, the quarter, and the heel.

18. (Currently Amended) The method Method according to Claim 1, characterized in that wherein the data about the spatial coordinates (x_n, y_n, z_n) of points of all the sizes in the range, as well as about said component parts associated with each shoe shape, is contained in a storage unit [[(8)]] associated with said computer means [[(10)]].

19. (Currently Amended) The method Method according to Claim 18, characterized in that wherein said storage unit [[(8)]] contains a database.

20. (Currently Amended) The method Method according to Claim 18, characterized in that
wherein a part of the data is contained in an integrated circuit [(30)] placed in the shoe
shape [(1)].

21. (Currently Amended) The method Method according to Claim 1, characterized in that
wherein said component parts are realized by feeding tool machines with data about the
profile, the volume, or the spatial coordinates of said footwear component parts.

22. (Currently Amended) The method Method according to Claim 1, characterized in that
wherein said tool machine incorporates and is driven by an on-board computer means
corresponding to said computer means [(10)].

23. (Currently Amended) The method Method according to Claim 16, characterized in that
wherein said storage unit is comprises a read/write memory or a read-only memory.

24. (Cancelled)

25. (Currently Amended) The method Method according to Claim 1, further comprising the
steps of:

—obtaining obtaining from said spatial co-ordinates (x_B, y_B, z_B) of the base shoe
shape [(2)] the spatial co-ordinates (x_n, y_n, z_n) of points of some shoe components
corresponding to said at least another shoe shape in the range;

~~-feeding feeding a numerically-controlled (NC) an NC tool machine with the spatial co-ordinates of said shoe components [[(8,11,12)]], for manufacturing respective moulds of said components; and~~

~~-molding molding the respective components.~~

26. (Currently Amended) A shoe shape of a predetermined footwear size for manufacturing footwear in ~~series very large scales~~ by automatic assembly machines, wherein the shoe shape characterized in that it incorporates an integrated electronic circuit [[(30)]] containing data about the spatial coordinates (x_n, y_n, z_n) of points on the shoe shapes of said predetermined size in the series, and about footwear component parts associated with said shoe shape. shape,

wherein said spatial coordinates (x_n, y_n, z_n) are proportionally related to spatial coordinates (x_B, y_B, z_B) of a basic size in the series by means of predetermined coefficients (c_x, c_y, c_z) that are functions of an integer (n) denoting the positive or negative distance of said predetermined size in a range with respect to the basic size, according to the following formulae:

$$Cx = 1 + f(n)$$

$$Cy = 1 + f(n) - f(n \cdot |n|)$$

$$Cz = 1 + f(n) - f(n \cdot |n|)$$

where, $|n|$ is the absolute value of n.

27. (Currently Amended) The shoe Shoe shape according to Claim 26, characterized in that wherein said integrated circuit [[(30)]] is received in a suitable position suitably provided socket [[(31)]] on the flat [[top]] surface of said shoe shape [[(1)]].

28. (Currently Amended) The shoe Shoe shape according to Claim 26, characterized in that wherein said integrated circuit [(30)] is either comprises one of a read-only memory or and a read/write memory.

29. (Currently Amended) The shoe Shoe shape according to Claim 26, characterized in that wherein data and information about the records of the shoe shape manufacturer where the shoe shape shoe design [(1)] has been made, an identification code, and CAM instructions describing the path of the contour line relative to a position reference, are stored in said electronic circuit [(30)].

30. (Currently Amended) The shoe Shoe shape according to Claim 26, characterized in that wherein the data contained in said electronic circuit [(30)] is read contact-less by radio or magnetic transmission.